

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-10. (cancelled)

11. (New) A method for assessing the sensitivity of an individual to the anti-inflammatory effects of fish oil comprising determining the genotype of the LT- α +252 allele and predicting a sensitivity of the individual to the anti-inflammatory effects of fish oil when the individual is homozygous for the TNFB2 allele.

12. (New) A method for assessing the sensitivity of an individual to the anti-inflammatory effects of fish oil comprising:

determining the inherent TNF- α production of the individual;

determining the genotype of the LT- α +252 allele; and

predicting a greater sensitivity of the individual to the anti-inflammatory effects of fish oil when the individual is heterozygous for the LT- α +252 allele and has low or medium levels of inherent TNF- α production than when the individual is heterozygous for the LT- α +252 allele and has high levels of inherent TNF- α production.

13. (New) A method for assessing the sensitivity of an individual to the anti-inflammatory effects of fish oil comprising determining the genotype of the IL-6 -174 allele and predicting a higher sensitivity of the individual to the anti-inflammatory effects of fish oil when the individual has the IL-6 -174 CC genotype than when the individual is has the IL-6 -174 GG or IL-6 -174 GC genotype.

14. (New) A method for assessing the sensitivity of an individual to the anti-inflammatory effects of fish oil comprising:

determining the genotype of the IL-6 -174 allele;

determining the genotype of the LT- α +252 allele; and
predicting a higher sensitivity of the individual to the anti-inflammatory effects of fish oil when the individual has the IL-6 -174 GG and TNFB1/2 genotypes than when the individual has other genotypes of these alleles.

15. (New) A method of reducing TNF- α production in an individual, comprising
a) determining the genotype of at least one of the LT- α +252 allele and the IL-6 -174 allele; and
b) administering to said individual a therapeutically effective amount of fish oil based on the genotype of the individual.

16. (New) The method of Claim 15, further comprising determining the inherent TNF- α production of the individual and administering to said individual a therapeutically effective amount of fish oil based on the genotype of the individual and the inherent TNF- α production of the individual.

17. (New) The method of Claim 15, wherein the individual has an inflammatory disorder is selected from the group consisting of an inflammatory skin disorder, Perianal Crohn's disease or arthritis.

18. (New) The method of Claim 17, wherein the inflammatory skin disorder is selected from the group consisting of atopic dermatitis, contact dermatitis, eczema, and psoriasis.

19. (New) The method of Claim 17, wherein the arthritis is selected from the group consisting of rheumatoid or psoriatic arthritis.